

CLAIMS

1. Sole (20) for footwear (10) comprising:
a toe part (70) being made of a substantially inflexible material;
5 a ball part (80) being made of a flexible material; and
an instep-heel part (90) being made of a substantially inflexible material.
2. Sole (20) according to claim 1, wherein the toe part (70) is made of a
composite material of carbon fibre in a thermoplastic resin.
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3. Sole (20) according to claim 1 or 2, wherein the instep-heel part (90) is made
of a composite material of carbon fibre in a thermoplastic resin.
4. Sole (20) according to any one of the above claims, wherein the ball part (80)
15 is made of a composite material of aramide fibre in a thermoplastic resin.
5. Sole (20) according to any one of the above claims further comprising a
plurality of spikes (100) attached to the toe part.
- 20 6. Sole (20) according to claim 1, wherein the sole (20) is made of a plurality of
first sections (22) and second sections (24) arranged alternately, wherein the
first sections (22) and the second sections (24) are made of different materials.
7. Sole (20) according to claim 6, wherein the first sections (22) are made of a
25 substantially inflexible material and the second sections (24) are made of a
flexible material.
8. Sole (20) according to claim 7, wherein the substantially inflexible material is
a composite material of carbon fibre in a thermoplastic resin.
- 30 9. Sole (20) according to claim 7, wherein the flexible material is a composite
material of aramide fibre in a thermoplastic resin.

10. An article of footwear (10) comprising:

- a sole (20) having a toe part (70); a ball part (80), an instep part (90) and a heel part (90);
- an open toe section;
- 5 - an instep section having two instep side supports (40), the instep side supports (40) being connected to the instep part (90) of the sole (20) and otherwise being open; and
- a heel section (30).

10 11. The article of footwear (10) of claim 10 wherein the heel section (30) comprises two heel side supports (110a, 110b) and an end heel support (30), wherein the two heel side supports (110a, 110b) and the end heel support (130) are connected at a first end to the heel part (90) of the sole (20) and are connected to each other at the other end.

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12. An article of footwear (10) comprising:

- a sole (20) having a toe part (70); a ball part (80), an instep part (90) and a heel part (90);
- an open toe section;
- 20 - an instep section; and
- a heel section (30), wherein the heel section (30) comprises two heel side supports (110a, 110b) and an end heel support (130), and the two heel side supports (110a, 110b) and the end heel support (130) are connected at a first end to the heel part (90) of the sole (20) and are connected to each other at the
- 25 other end.

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13. The article of footwear (10) of claim 12 wherein the instep section has two instep side supports (40), the instep side supports (40) being connected to the instep part (90) of the sole (20) and otherwise being open.

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14. The article of footwear (10) of one of claims 10 to 13 further comprising an upper instep section (50).

15. The article of footwear (10) of claim 14, wherein the upper instep section (50) is attached to the instep side supports (40) by means of adjustable ties (60).

5 16. The article of footwear (10) according to any one of claims 10 to 15 further comprising a plurality of spikes (100) mounted on an underside of the toe part (70) of the sole (20).

10 17. The article of footwear (10) according to any one of claims 10 to 16 further comprising one or more straps attached to an upperside of the toe part (70).

18. The article of footwear (10) according to any one of claims 10 to 17 being an athletic shoe.

19. Method for the manufacture of an article of footwear (10) comprising:

- 15 - a first step of placing at least one ply of a first material in a toe part and an instep-heel part of a mould;
- a second step of placing at least one ply of a second material in a ball part of the mould, wherein the first material and the second material overlap at seams.
- 20 - a third step of placing at least one ply of a third material in the toe part and the instep-heel part of the mould.
- a fourth step of curing the first material and the second material to form the article of footwear.

20. The method of claim 19 wherein the fourth step of curing the material involves

25 baking the article of footwear under pressure.

21. The method of claim 19 or claim 20, wherein the first step comprises a step of placing at least two plies of the first material in the toe part and the instep-heel part of the mould.

30 22. The method of one of claims 19 to 21, wherein the third step comprises the step of placing at least two plies of the second material in the toe part and the instep-heel part of the mould.

23. The method of one of claims 19 to 22, further comprising a step of placing spikes (100) in the mould prior to the first step.

24. Use of the sole (20) of any one of claims 1 to 9 in athletics footwear.